

**REMARKS**

The present application includes claims 1-51. Claims 1-51 have been rejected in the Office action. By this Response, claims 1, 2, 3, 5, 8, 9, 10, 11, 14, 16, 17, 18, 19, 20, 21, 22, 24, 25, 27, 30, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 48, 49, 50, and 51 have been amended.

The applicants have carefully considered the official action dated March 7, 2008, and the references it cites. The Office action objects to the drawings as failing to show by reference number the details of the invention as described in the specification. The Office action objects to claims 1, 3, 5, 16, 17, 20, 35, 39, 40, 42, 43, and 46-51 due to formalities in the claim language. The Office action also rejects claims 2, 3, 9, 19, 21, 24, 25, 33, 50, and 51 as indefinite. Claims 1-51 are rejected as directed to non-statutory subject matter. Claims 1-4, 6-10, 16-17, 19-21, 27-29, 31-43 and 49-51 are rejected as anticipated by Lewis (U.S. Patent No. 5,675,710). Finally, claims 11-15, 22-24, 44-45, and 47 are rejected as unpatentable over Lewis in view of Fries (U.S. Patent No. 6,751,606).

In view of the foregoing amendments and the following remarks, the applicants respectfully traverse the rejections and submit that all claims are in condition for allowance. Accordingly, the applicants respectfully request reconsideration.

**Drawing Objections**

The drawings are objected to under 37 CFR 1.83(a) because they fail to show by reference number the details described in the specification. By this response, a substitute specification and replacement drawings are submitted to provide reference numbers in the

specification and drawings. No new matter has been added. Thus, the applicants request that the objection be withdrawn.

### **Claim Objections**

Claims 1, 3, 5, 16, 17, 20, 35, 39, 40, 42, 34, and 46-51 were objected to because of various informalities. By this response, claims 1, 3, 5, 17, 20, 35, 39, and 42 have been amended to correct these informalities. The official action objects to claims 16, 40, 42, 43, and 48 as substantial duplicates of other claims. The applicants submit, however, that the above-mentioned claims have different dependencies and thus different sets of limitations than the other claims referenced by the Office action. For example, the official action asserts that claim 16 is a substantial duplicate of claim 14. However, claim 14 depends from claim 11 which depends from claim 10. Claim 16 depends directly from claim 10. Thus, while claim 14 recites a combination of limitations with claim 11 (e.g., posing hypothetical questions and producing a criteria document), claim 16 recites producing a criteria document without necessarily posing hypothetical questions. Clearly, these claims have differing but overlapping scopes. The same holds true for the other listed claims. The applicants are entitled to different claims of differing scopes. Therefore, the applicants submit that these claims are not substantial duplicates, and the objections should be withdrawn.

### **Claim Rejections – 35 USC 112**

Claims 2, 3, 9, 19, 21, 24, 25, 33, 50, and 51 are rejected under 35 U.S.C. 112, second paragraph, as indefinite for failing to particularly point out and distinctly claim the subject matter which the applicants regard as the invention. By this response, claims 3, 21, 33, 50, and 51 have been amended to remove the parentheses and their contents. Claims 9, 19, 24,

and 25 have also been amended to provide for sufficient antecedent basis. Claim 2 has been amended to provide additional detail regarding the value recited. As described in the application with respect to the labeling of the various categories or types of messages, the value for labeling a particular category provides an indication of an expected improvement to the performance of the classifier. The applicants have also clarified in claim 2 how the next group for labeling is selected. Therefore, the applicants submit that the rejections have been overcome.

**Claim Rejections – 35 USC 101**

Claims 1-51 are rejected under 35 U.S.C.101 as being directed to non-statutory subject matter. The official action submits that a computer system must set forth a practical application to produce a real-world result. By this response, the applicants have amended independent claims 1, 3, 21, 33, 49, 50, and 51 to provide a computer memory and/or method for developing and deploying a classifier for electronic communications that can be provided and used to classify communications and thus produce a real-world result that is useful and tangible to computer users. The computer memory and method for classifying provide substantial real world value to users in classifying electronic communications received at a computer or other processing device. While each user may have different criteria to classify electronic communications as relevant or irrelevant, the method(s) and media for developing and deploying the classifier functionality remain the same and provide added flexibility for each user to define his or her own criteria for relevant and irrelevant communications. Such claimed limitations are directed to statutory subject matter in the form of computer-implemented methods or computer memory and are supported by the application. Therefore, the applicants respectfully request that the rejection under 35 U.S.C. 101 be withdrawn.

**Claim Rejections – 35 USC 102**

Claims 1-4, 6-10, 16-17, 19-21, 27-29, 31-43, and 49-41 stand rejected under 35 U.S.C. 102(b) as anticipated by Lewis. The applicants respectfully traverse this rejection for at least the following reasons.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *MPEP* 2131 (*citing Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). The Office Action has failed to show any mechanism or teaching in Lewis regarding, for example, how a classifier for classifying electronic communications presents communications to a user from several groups of electronic communications including (1) a training set selected by an active learning algorithm; (2) a set of communications previously labeled by the system; (3) a test set for testing the accuracy of the classifier; (4) a faulty set suspected to have been previously mis-labeled by the user; and (5) a random set of communications previously labeled by the user, and then allowing the user to label those communications as relevant or irrelevant.

The applicants respectfully submit that independent claim 1 is allowable over the art of record. Claim 1 is directed to a computer assisted/implemented method for developing a classifier for classifying electronic communications that includes, *inter alia*, a presenting communications to a user for labeling that are selected from groups including a training set group of communications selected by an active learning algorithm; a system-labeled set of communications previously labeled by the system; a test set group of communications for testing the accuracy of a current state of the classifier being developed; a faulty set suspected to have been previously mis-labeled by the user; and a random set of communications

previously labeled by the user. The art of record does not describe or suggest that such different groups of communications are presented to a user via the computer-implemented method for labeling by the user as relevant or irrelevant. A classifier is then developed and deployed for use based on the relevant/irrelevant labels. While Lewis discusses defining a classification, allowing the machine to automatically annotate documents with a degree of relevance, and then allowing a user to manually correct the machine's determination of a degree of relevance (see, e.g., Abstract and col. 3, line 60 – col. 4, line 11), Lewis fails to disclose the classifier developed and deployed as described and presently claimed in the present application, which provides the groups of communication enumerated above and goes beyond merely correcting a machine's automatic annotation of relevance. Accordingly, the applicants respectfully submit that claim 1 and all claims dependent thereon are allowable over the art of record.

Similarly, independent claim 3 provides a computer assisted/implemented method for developing a classifier for classifying electronic communications that includes, *inter alia*, that electronic communications are presented to a user for labeling as relevant or irrelevant as selected from groups of communications including a training set group of communications, the training set group of communications being selected by an active learning algorithm; a test set group of communications for testing the accuracy of a current state of the classifier being developed; and a previously-labeled set of communications previously labeled by at least one of the user, the system, and another user. The classifier is then deployed for use. As discussed above, the user-correctable machine annotation of Lewis fails to disclose the presently claimed method for classifier development and deployment as recited in claim 3. Accordingly, the applicants respectfully submit that claim 3 and all claims dependent thereon are allowable over the art of record.

The applicants submit that claim 49 recites a computer memory contains a software program including the above methodology to develop and deploy a classifier for electronic communications and should also be allowable.

Independent claim 21 provides a computer assisted/implemented method for developing a classifier for classifying electronic communications that includes, *inter alia*, developing an expression of labeling criteria in an interactive session with the user. The user is then presented with electronic communications to label as relevant or irrelevant based on the criteria. The machine-generated, human-corrected annotation system of Lewis fails to disclose such an interactive session with the user to develop labeling criteria for electronic communications before the user labels communications as relevant or irrelevant. Accordingly, the applicants submit that claim 21 and all claims dependent thereon are allowable over the art of record.

The applicants submit that claim 50 recites a computer memory contains a software program including the above methodology to develop and deploy a classifier for electronic communications and should also be allowable.

Independent claim 33 provides a computer assisted/implemented method for developing a classifier for classifying electronic communications that includes, *inter alia*, defining a domain of communications on which the classifier is going to operate; collecting a set of communications from the domain, eliciting labeling communication criteria from a user, and labeling communications from the set of communications by both the system and the user according, at least in part, to the labeling communication criteria. As discussed above, the machine-generated, human-corrected annotation system of Lewis fails to disclose eliciting labeling criteria for electronic communications from the user before the user labels communications. Lewis also fails to disclose the labeling by both the system and the user

based at least in part on the criteria elicited from the user. Accordingly, the applicants submit that claim 33 and all claims dependent thereon are allowable over the art of record.

The applicants submit that claim 51 recites a computer memory contains a software program including the above methodology to develop and deploy a classifier for electronic communications and should also be allowable.

### **Claim Rejections – 35 USC 103**

In order for a *prima facie* case of obviousness to be established, the Manual of Patent Examining Procedure, Rev. 6, Sep. 2007 ("MPEP") states the following:

The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that “rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”

See the MPEP at § 2142, citing *In re Kahn*, 441 F.3d 977,988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), and *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval). Further, MPEP § 2143.01 states that “the mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art” (citing *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007)). Additionally, if a *prima facie* case of obviousness is not established, the applicant is under no obligation to submit evidence of nonobviousness:

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

*See* MPEP at § 2142.

Claims 11-15, 22-24, 44, 45, and 47 have been rejected under 35 U.S.C. 103(a) as unpatentable over Lewis in view of Fries (U.S. Patent No. 6,751,606). The applicants respectfully traverse this rejection for at least the following reasons.

As discussed above, the applicants respectfully submit that Lewis fails to disclose the limitations recited in independent claims 1, 3, 21, 33, 49, 50, and 51, as well as their dependent claims. Claims 11-15 depend from independent claim 3. Claims 22-24 depend from independent claim 21. Claims 44, 45, and 47 depend from independent claim 33. Thus, the applicants submit that Lewis alone fails to disclose the limitations recited in these dependent claims. In the official action, the examiner agrees that “Lewis does not teach the interactive session includes the steps of posing hypothetical questions to the user regarding what type of information the user would consider relevant.” (See the official action dated March 7, 2008, at pages 22, 25, and 27.) Additionally, the official action states “Lewis does not teach the hypothetical questions elicit “yes”, “no” and “unsure” responses from the user.” (See the official action dated March 7, 2008, at pages 23, 25, and 28.) Further, as explained in the official action, “Lewis does not teach subsequent questions are based, at least in part, upon the answers given to previous questions.” (See the official action dated March 7, 2008, at page 26.)

Fries relates to a system for searching of a network that includes a network indexing component capable of indexing terms located in pages on the network. (See, e.g., Fries at Abstract.) The indexing component receives a search query and returns a topic for each term in the query that matches an indexed term. (See, e.g., Fries at Abstract.) An animation character may be used in conjunction with the search. (See, e.g., Fries at Abstract.) The interaction in Fries involves the searcher function providing suggestions to the user as to



where the user should search and how they should construct their search query. (See, e.g., Fries at col. 2, lines 11-16.) The applicants respectfully submit that the web search engine of Fries is not analogous art to the electronic communications classifier development and deployment recited in the present application. Furthermore, regardless of the lack of relevance of the disclosure found in Fries, providing search suggestions in the machine annotation framework of Lewis fails to teach, suggest, or reasonably motivate the presentation of communications, development of labeling criteria, and deployment of a classifier for electronic communications as recited in pending claims of the present application.

Accordingly, all pending claims are in condition for allowance.

**CONCLUSION**

In general, the official action makes various statements regarding the pending claims and the cited references that are now moot in light of the above. Thus, the applicants will not address such statements at the present time. However, the applicants expressly reserve the right to challenge such statements in the future should the need arise (e.g., if such statement should become relevant by appearing in a rejection of any current or future claim).

In view of the foregoing, the applicants respectfully request reconsideration of this application. If there are any remaining matters that the Examiner would like to discuss, the Examiner is invited to contact the undersigned representative at the telephone number set forth below. The Commissioner is authorized to charge any necessary fees or credit any overpayment to Deposit Account No. 50-2455.

Respectfully submitted,

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